

THE GREAT
CANADIAN NORTH-WEST!

→ SPEECH ←

—OF THE—

HON. J. B. PLUMB,

—IN THE—

SENATE OF CANADA,

—ON—

The Dominion Lands Bill,

MAY 8th and 9th, 1883.



REPORTED BY

HOLLAND BROS.

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*Official Report from the Debate in the Senate on the Dominion Lands Bill, May 8-9, 1883
by Holland Bros., Senate Reporters.*

HON. MR. PLUMB—I venture to address the House at this stage of the Bill with a view to two things, first to say that I am entirely in accord with the hon. gentleman who has moved this Bill and with the Bill as it has been introduced into the House. It must be well known that all measures of this kind are to a large extent experimental. Whatever legislation is required for the purpose of providing for settlers in a new country where everything is untried, where the wants to be provided for are comparatively unknown, must be largely subject to revision, and it would be most improper for any government to adopt a hard and fast rule, and decide that any regulations which had been adopted were to be permanent. Experience has shown that certain regulations which were in the first instance thought to be salutary must now be somewhat modified, and the growth of the regulations from the beginning, when the North-West was first acquired, until now marks the gradual increase of the interest taken in that country, the rapid development of its resources, and the necessities which, from time to time, have forced themselves upon the Government and have been adopted in favor of increasing the population and of accommodating as far as possible those who are going up as pioneers to take possession of the land. One of the prominent features of this Bill provides that the homesteader shall not be restricted to the acquiring of but one homestead, but shall have the privilege, under certain circumstances, of relinquishing the first and of taking another. In

the previous regulation the settler exhausted his right by taking the first homestead. I think it is in the interest of settlement, and in the interest of the country that after due notice the pre-emption right shall be rescinded. I have no doubt that it gave rise to constant difficulty and that it was not in the interest of the country. It is also provided, that there shall be stringent provisions made to prevent what is called claim-jumping. It is well known that in the North-West a class of speculators have been constantly on the watch to take advantage of the circumstances of first claimants, and the absence, failure, or inability of any settler to fulfil the conditions of settlement from causes which he might not be able to control. After he had selected a good lot they followed him for the purpose of availing themselves of his mischance. I am very well pleased to find that the Government have seen fit to protect any settler who has not wilfully forfeited his claim to protection. Many interesting reflections occur to every one who has watched the development of the North-West from the inception of settlement as a Dominion domain after the purchase of the territory from the Hudson Bay Company. At that time little was known of the actual advantages that were acquired by the purchase. Little was known of the actual conditions of the country. It was the home of wild Indians and of the wild animals that they hunted for subsistence. It was in the interest of those who previously controlled the country that its resources should not be known; it was intended by

them, so far as they could, to keep it for purposes for which they had hitherto held it, as a fur-bearing preserve, and it was after a very long time and under very great difficulties, that it was discovered that the Great North-West was to be the future garden of Canada—the great possession which would ultimately recoup Canada for all the expense incurred in connection with its purchase and development, and provide the means, not only for opening it up for settlement, but probably for the reimbursement of a very large portion of the public debt. Gradually it has come to be known that nearly all those portions of the region West of Red River, and South of parallel sixty, which were supposed to be almost valueless, are equally prolific with those which were at first known to be productive, and I intend with the permission of the Senate to call attention to some of the peculiar features which, I think, have warranted and justified the Government in making the predictions that they have made in regard to the future of the country. It will be remembered that various projects have been entertained for the opening up of the wilderness; and at the same time fulfilling what were considered to be the obligations incurred by the Government at the time of Confederation. One of those obligations, the greatest, the most important, and the most weighty, was the union of the Eastern and Western limits of the Dominion, by a line of railway. We were told, and we were told with authority, that the Dominion had prematurely entered upon those obligations. We were told that the Dominion had not the financial strength to construct a railway of so great a length, and that the burden of taxation upon the people would be too heavy—that the undertaking was entirely premature. I had the honor, during the discussions that took place upon that subject, to point to the fact that a few men, practically unaided by the Government, during one of the most difficult financial periods in the United States, in the midst of a great war, had by their own enterprise, energy and courage succeeded in building a railway from Sacramento to connect with the Union Pacific at Cheyenne that was being pushed across from this side of the continent. Four or five men in California united

in this effort and by their own exertions they were able to construct a railway across the Sierra Nevada through a country beset with formidable difficulties and at that time promising but very little return for the enormous outlay. Then on this side, the Union Pacific in the hands of a few men, aided somewhat by Government subsidies, as were those on the Western section—mainly of lands—which were then supposed to be comparatively valueless ran its line west until the two met somewhere near Cheyenne. I argued from that that if a few private individuals were able to accomplish so much in the way of railway enterprise, the Dominion of Canada was powerful enough to build her own line. The event has proved that everything that was predicted by those who were most desirous for the construction of our railway has been more than verified, and why? Simply because the fertile territory extending from the Red River to the base of the Rocky Mountains has proved to be the means by which the whole outlay is to be re-couped with a speed and certainty beyond the predictions of the most sanguine. In 1874 it was enacted that a subsidy should be offered of \$5,000,000, acres of land, and \$10,000 a mile and interest-guaranteed for 25 years upon an amount of capital, which was not a fixed quantity. The sum proposed, however, was calculated to be equivalent to something over \$40,000,000 in cash, and the value of the land, whatever it might be, was to be added. With that offer, which was characterized by the leader of the late Government as truly liberal, before the public, such was the fear that there was no adequate value in the North-West lands, that no bidders could be found. Mr. Fleming made the attempt; Mr. Mackenzie made the attempt; the offer was open for years, but there could be found no Company who would venture to undertake so difficult a task. Subsequently, upon the return of the Conservatives to power, 100,000,000 acres of land were placed at the disposal of the Government by Parliament, for building the railway. Then those who were the prophets of evil predicted that we had not the power to carry out the project, and contended that we might as well give ten acres of

land as 100,000,000; but that vast tract is now in the hands of the Government, as a trust for the purpose of recouping the Country and the people for the advances made towards the construction of our trans-continental highway: 25,000,000 acres have been handed over to the Canadian Pacific Railway Company, with a cash subsidy of \$25,000,000, and the portions of the Railway constructed by the Government; and the remaining 75,000,000 acres are in the hands of the Government. With that 75,000,000 they are dealing under this Bill. At the time of the discussion upon granting 100,000,000 acres of land, the Premier made a calculation in regard to the expected immigration into the new country, in regard to the sales of land that would be made there, and in regard to the probable results at the time when the completion of the railway might be expected. I remember the derision with which his prediction was received by the opponents of the Government. I intend to show, as the second branch of my argument, that, so far from being extravagant, it was quite within the mark; that the results for the last two or three years have proved conclusively that anything that was then estimated will be far exceeded if the ratio of increase continues that has been shown during the last two or three years. Before that, however, I wish to say that the basis upon which the calculation was made was the growth and development of several of the new States and Territories of the United States, which under similar circumstances had

been brought under cultivation by railway facilities, and it was natural to suppose that under like circumstances, with a soil as good as if not better than they had, the North-west might claim to have similar advantages. I have lately examined the statistics of the United States as presented in the census returns, and compared them with the census returns of Canada. I have been utterly astounded at the results that I have found of the growth and development of some of the newer states on which the calculations of my right hon. friend the leader of the Government, just referred to, were based. These statements were so marvellous that I ask the attention of hon. gentlemen who are listening to me now, to the brief *resume* that I shall make of them, because I think nothing can be imagined that can more greatly strengthen the case which has been made on our side, and those believing as I do in the resources and general prospects of our great possession to which we are all looking with the deepest interest in respect to its capacity to relieve the burden which is to be thrown on the country by the construction of the Canadian Pacific Railway. I take for my example three States of the Union—the State of Nebraska, which is a comparatively new one, and which ten years ago, had scarcely any population; the State of Minnesota, which 20 years ago was almost unknown, and the State of Kansas, which had but a few settlers in it 20 years ago. The following table will show the enormous growth in the population and development of those States:

Railway Mileage, 1879, Population, Crops of Wheat, Corn and Oats in Nebraska, Kansas, Minnesota, and total of same in the United States, according to Census Returns of 1860, 1870 and 1880.

Pop. Miles	Population, 1860	Population, 1870	Population, 1880	Bush. Wheat				Bush. Corn				Bush. Oats			
				1860.	1870	1880	1890	1860	1870	1880	1890	1860.	1870	1880	1890
2782 Nebraska	28,441	123,000	452,000	147,807	2,125,028	13,817,007	1,482,080	4,786,710	65,450,135	74,502	1,477,562	6,555,875	8,180,375	8,180,375	8,180,375
1844 Kansas	107,206	354,000	996,000	184,173	2,401,198	17,324,141	6,150,727	17,025,325	88,325	4,007,925	23,384,158	10,078,261	10,078,261	10,078,261	10,078,261
4025 Minnesota	172,023	439,000	780,000	2,180,993	13,860,073	34,001,030	2,941,032	4,743,117	14,831,741	2,176,002	15,653,748	35,120,418	35,120,418	35,120,418	35,120,418
Total	307,670	916,000	2,228,000	2,529,033	23,482,297	65,742,178	10,674,739	28,505,352	186,011,201	2,338,829	15,653,748	35,120,418	35,120,418	35,120,418	35,120,418
United States	31,443,221	38,568,371	50,185,783	173,104,924	287,745,626	459,479,505	838,792,742	769,944,519	1,754,861,535	172,043,185	282,107,157	407,858,966	407,858,966	407,858,966	407,858,966
Percentage of above 3 States to U. S. totals	16%	23%	44%	8%	2%	14%	17%	16%	25%	1%	1%	16%	16%	16%	16%
U. S. increase															

Acreage of Farms, Value of Crops in the above States, and in the United States, as shown by the same Returns.

	ACREAGE OF FARMS.			VALUE OF FARMS.			VALUE OF CROPS.		
	Acres 1860	Acres 1870	Acres 1880	Value, Dollars, 1860	Value, Dollars, 1870	Value, Dollars, 1880	Value, Dollars, 1860	Value, Dollars, 1870	Value, Dollars, 1880
Nebraska.	631,214	2,093,781	9,644,896	3,878,326	30,242,186	105,992,541		8,604,742	31,708,014
" Kansas.	1,778,400	6,650,873	21,451,478	12,288,240	96,327,040	235,178,686		27,630,651	92,240,891
" Minnesota.	2,711,968	6,483,923	18,400,019	27,490,922	97,847,442	193,724,200		33,446,400	94,466,891
Total	5,121,582	14,234,483	44,802,821	\$43,642,478	\$224,416,002	\$634,835,737		\$69,681,793	\$193,418,226
U. S. Totals	407,212,538	407,735,141	539,300,130	\$1,045,005,007	\$9,202,083,801	\$10,107,090,776	NO REPORT	\$2,447,538,633	\$2,213,402,564
Percentage of above 3 states to United States totals.									
Total persons engaged in agriculture in the United States.				1870, 5,922,471; 1880, 7,670,493.					
" "									

II

Cash value of (crops, per acre)	Nebraska, \$10.21; Minnesota, \$8.40; Nevada, Colorado and Territories, \$16.10
Average production per acre United States, average 10 years up to 1879	Corn, 27 bushels; Wheat, 12 bushels; Oats, 23 bushels; Barley, 21 bushels.
Production of Mackenzie Farm, Manitoba, per acre, (reported by George Gowan, Wigtonshire)	Wheat, 1874, 41 bushels; 1875, 36 bushels; Oats, 75 to 80 bushels; Barley, 40 to 45 bushels.

The increase of farm acreage, in the whole United States in the twenty years between 1860, and 1880, was 130,166,601 acres: of this 39,680,739, or thirty per cent., were added by those three states, chiefly for cultivation of wheat, corn and oats. Now I argue from this that the growth of those three cereals is extending in a certain direction. We all know that the wheat culture of the United States is gradually centering in the newer states of the West. From that it is fair to infer that if the wheat crop decreases in those states the final result will be that the Canadian North-West must become the great wheat-field of North America. The same authority which I am giving you here shows that the average yield of wheat of the United States is less than twelve bushels to the acre. There is no doubt that the average yield in Minnesota, which is one of the most fertile of all the wheat growing states of the Union, has declined until it is now not more than 15 or 16 bushels to the acre. Throughout the United States, the old wheat-growing lands have become exhausted. The great Genesee country, which I used to know when a boy, cannot now produce wheat, and the old mills that were provided for the purpose of grinding the famed Genesee wheat, are now supplied by wheat from Montana and Nebraska. From all this it is safe to argue that the chief production of wheat will be in the North-West. Twelve bushels to the acre does not pay the husbandman, if high cultivation and manuring are required. Fifteen bushels to the acre scarcely pays where such cultivation is necessary, for the average price is but \$1.06 per bushel in the United States. The same may be true of corn, but the Dominion will never be a corn producing country. It is also true of oats; the average yield of oats, as given in the United States census, is 27 bushels to the acre. The average yield in the North-West, as given by the reports—which I can produce, and which are in tables which I have before me—of 50 or 60 returns from Manitoba and the North-West, is over 60 bushels to the acre, in some cases 80; and the average over-weight is some five or six pounds to the bushel, the average weight being 37½ pounds to the bushel. From the North-

West returns I have taken the weight of 65 different crops of wheat and have found them to average 64½ pounds to the bushel, which shows not only that the crop is very prolific, but that the wheat is heavier than the average in other countries. I understand that 60 pounds is the average in Iowa, and in some of the older states it does not weigh more than 56 pounds to the bushel. But there is another and most important consideration. Owing to the peculiar nature of the soil in the North-West, the roots go down deeper and afford greater sustenance to the plant, and consequently it produces a better berry than it does anywhere else on this continent. It is well known that a prominent miller of Minnesota, a few years ago, went up to the North-West to procure seed, finding that the crop in Minnesota was gradually deteriorating. He found there that a head of wheat produced three kernels in a cluster, where there were but two in Minnesota or Dakota, making a difference of one-third in the product, the heads being the same length. It is found also that further North, at Prince Albert, and on the Peace River, there were four or five kernels in a cluster which in comparison with the product of Minnesota, of 17 bushels to the acre, would give 35 or 40 bushels to the acre. This is well authenticated, and it is entirely owing to the nature of the soil, and forms a profit which is perfectly enormous, and which gives the North-West value as a wheat growing country beyond any known country in the world. The tenant farmers who were sent out to this country from Great Britain, and delegated by their Agricultural Societies to visit the North-West, visited Dakota and Minnesota also. One of the most intelligent of those delegates, Mr. Biggar of Kircudbright, states that as between Dakota and Minnesota and our North-West, he does not hesitate for one moment to say that the advantages are infinitely in favor of our territory. He says that the crop in Dakota is less, by ten to twelve bushels to the acre, than it is in Manitoba and the North-West, all of which he says—the difference of ten or twelve bushels—is profit. His statement is confirmed by the statements of several others who also visited the two countries. It is obvious that one of the states that

we have to compete with is Montana. It may be known to gentlemen here that that great territory which contains 93,881,184 acres of land has, according to the statements of the local authorities, only 3,346,400 acres of arable area. The lands are fertile and have similar characteristics to our own. But their extent is so limited that they cannot come largely into competition with ours. Therefore also when we find that the crop in Dakota is ten to twelve bushels per acre less than ours; when we hear that the crop in Minnesota had fallen two years ago to a little over fourteen bushels per acre; that the grain itself has so deteriorated in value that it is necessary at some points to re-inforce it with the harder wheat of the north, the calculation we make that ours will ultimately be the great wheat producing country of America is fairly based and fairly sustained. But there are other conditions. The soil of our North-West is shown by the reports in my hand to vary from 18 inches to 12 feet in depth, of absolutely vegetable mould which is practically inexhaustible in either case, and those plains which were supposed to be perfectly arid impracticable deserts, covered with cactus and artemisia, are found, as soon as the sun-baked surface is broken, to be cultivable and yield most luxuriantly; in fact some of the very finest parts of the country once supposed to be portions of the great American desert, have recently been found to contain the most valuable and prolific soil of the North-West. It has also been discovered that the same climatic conditions extend from our southern boundary line as far north as the 60th parallel; the same flora, the same herbage, the same conditions which promote the growth of that flora and herbage are found from the 49th parallel up to the neighborhood of Peace River, and in some cases even beyond it. The spring opens at the same time over the whole range. Seeding can be commenced at the same time; the harvest can be reaped the same time, and practically there are tracts of country, extending from 900 to 1000 miles, from the 49th parallel northward, which bear exactly the same relations as to crops throughout their whole extent. There is nothing more remarkable than the regularity of the rain-falls in the

months of June and July, which are the growing months in those latitudes, and the dry season which takes place at the time of the harvest. The seed is sown and harrowed-in in April, as soon as it can be covered, and before the frost is out of the ground. Seeding on the great Bell Farm at Qu'Appelle, was begun on the 10th of April this year.* It begins to germinate in the warm soil on the surface, and, as the ice thaws beneath, it creates a moisture that promotes vegetation. In June and July the rain-falls take place.

RAINFALL IN INCHES

FOR THE FOUR MONTHS OF VEGETATION.

	May	June	July	Aug.	Total 4 mos.
Winnipeg	2.17	3.42	2.68	7.11	15.37
Toronto	2.98	3.04	3.72	2.81	12.55
Rochester, N.Y.	3.04	3.25	3.01	2.60	

RAINFALL IN INCHES

FOR TWO MONTHS OF HARVEST.

	September.	October.	Total.
Winnipeg	0.73	0.03	0.76
Toronto	4.45	2.96	7.41
Rochester, N.Y.	3.05	3.39	6.41

Barley sown on the 6th of May is harvest. about the 8th of August, and that is the case throughout a vast extent of the territory. The wheat is ripe for harvest before the month of September, and at that time, as the weather is perfectly dry, the berry that has previously attained a marvellous growth through the richness of the soil and the frequent rain-falls, becomes hardened and is found to be of the very best quality for making flour. It is also rich in the nitrogens, and it is known that there is no flesh-forming product equal to wheat. It is estimated that 480 pounds of wheat are equal to 550 pounds of the best beef, or to 4,800 pounds of potatoes; that is the statement made in the reports of Mr. Caird, Mr. Bourne and other statisticians in England. Wheat must continue to be the staff of life for the human race, and I believe we have to offer to the world the greatest, the most extended, the cheapest and most prolific wheat-fields that exist on the face of the earth. A comparison has been made between the chemical condition of the soil of Manitoba and that of the most productive soil of Holstein in Europe by the analysis of Professor Emmerling which is reported by Senator Klotz, of Keil, as follows, "An-

*Note. On this farm 2,700 acres have been sown to wheat since that day. The blades were 6 inches high on the 15th of May, and promised a heavy yield.

nexed I give you our analysis of the most productive soil in Holstein by which you will see how exceedingly rich the productive qualities of the Manitoba soil are, and which fully explains the fact that the land in Manitoba is so very fertile, even without manure." "The chief nutrients are first nitrogen, then potash and phosphoric acid which predominates there, but what is of particular importance is the lime contained in the soil whereby nitrogen is set free and ready to be absorbed in vegetable organisms. The latter property is defective in many soils and when it is found defective, recourse must be had to artificial means or by putting lime, marl or clay which contains much lime upon the same. According to the analysis of the Manitoba soil there is no doubt that to the farmer who desires to select for his future home, a country which has the most productive soil and promises the richest harvests, no country in the world offers greater attractions than the Province of Manitoba, in the Dominion of Canada.

	Holstein Soil	Manitoba Soil	Excess in Manitoba Soil
Potash	30	228.7	198.7
Sodium	20	3.38	13.8
Phosphoric Acid	40	69.4	29.4
Lime	130	682.6	552.6
Magnesia	40	16.1	6.1
Nitrogen	40	486.1	446.1

The above statement was made in 1872. Subsequent exploration and discovery justifies the opinion that it may be also applied to a large part of the fertile land lying west of Red River.

The fact that the sunlight is longer in the North-West by two or three hours than it is with us is another most important element in the productiveness of that country. In the Peace River district, in the longest days, the sun rises at ten minutes past three and sets at forty minutes past eight; there is but thirty or forty minutes difference between the length of the day there and the length of the day in the Province of Manitoba; consequently the longer sunlight gives extraordinary growth and vigor to the crops during the growing season, which extends through the months of May, June, July and part of August. It is shown by the following tables that the mean temperature of the growing months is higher at

Winnipeg and Battleford than it is at Toronto, Penzance or Koenigsberg.

Metrological Report, 1876

	QUARTERLY RAINFALL.					MEAN TEMPERATURE.				
	Winter	Spring	Summer	Autumn	Annual	Lat.	June	July	August	Mean
Winnipeg	0.00	5.69	10.52	0.04	16.25	43°49'	61.85	67.49	66.88	65.24
Toronto	5.61	6.63	5.74	3.18	21.16	49°53'	63.20	68.19	67.34	66.24
Winnipeg	28.6	67.7	29.7	45.7	172.7	52°43'	60.35	63.95	67.79	64.03
Toronto	28.6	67.7	29.7	45.7	172.7	50°8'	59.05	62.01	61.01	60.69
Winnipeg	50°41'	64	65.08	64.09	64.39	50°41'	64	65.08	64.09	64.39
Toronto	54°42'	57.4	62.06	61.07	60.04	54°42'	57.4	62.06	61.07	60.04
Mean Temperature from April to August inclusive.										
Toronto	57°55'					57°55'				
Winnipeg	58°19'					58°19'				
Battleford	58°53'					58°53'				

Wherever the mean temperature in July and August is at 60 degrees wheat attains perfection. It is a well-known law that in the growth of wheat the further north it can be cultivated within the limits of successful production the better is the berry, and that is undoubtedly the case in the North-West. It is also true that there is no plant which is so susceptible to injury by frost as the oat. The oat plant flourishes almost as far north as the Peace River as well as anywhere else on this continent, and the priest of the mission at Qu'Appelle raised last year I am told over 700 bushels of oats on 9 acres of ground—nearly 80 bushels to the acre. The statistics I produce will show that from 70 to 80 bushels per acre is a very common average as reported by the farmers who have sent in their returns in connection with Professor Macoun's report. I have been induced to go into those matters at some considerable length, because I believed it was desirable that there should be, upon the floor of this House an utterance condensing, as far as possible, the information which has been constantly accumulating in regard to our

new country. It is true that much of the information which I am giving to the House may be in the possession of many gentlemen who have made a study of the subject. It is true also that we cannot invent facts; we have to take them as they are, but I thought it would serve a useful purpose, to bring them together, and it was solely with the view of lending my mite, so far as I could, to the development of our noble domain, and to sustain the Government in their desire to have that country rapidly settled, that I have collated figures and facts at very considerable labor, and have attempted to lay them succinctly before the Senate. It was not for the purpose of making a speech, because an address upon such a subject must necessarily be dry, and I confine myself entirely to a simple, plain and straight-forward statement of the case as it stands. It may have happened that in the course of my remarks I have made use of information which is known to some members of the House who are familiar with the country, but I may say that I believe a great deal I have stated must be new, for it has been gathered from sources that have only been available to the public within the last four or five weeks, namely the condensation of the American statistics and census, and of the Canadian census, the tables of which are now just being published and laid before the country. I have also to say that I have availed myself of statements and tables which I have found in a volume lately published by Professor Macoun, the accomplished botanist, who has done so much during his long and thorough investigation of the flora of the Northwest, to inspire public confidence in that country, and towards giving us a scientific statement of the productions of our great prairies. I will now give to the House an item which I omitted to give while speaking of the new states and territories of the United States which I think is of great interest to us, and from which we may draw an inference in regard to the mineral resources of the country which we are about to open. I hold in my hand a statement of the production of the precious metals in the states in which mining is carried on East of the crest of the Sierra Nevada. It will be found in this statement, that the total production of the precious metals in that region, to the close of the year, ended the

30th of June, 1882, published in the American Almanac for 1883, is \$284,978,620. What I want to call particular attention to is this fact; that of that amount the sum of \$58,062,382, or about one-fifth of the whole, was produced in Montana, directly alongside of the Southern boundary of our North-West Territory, which, probably, has the same geological formation in its mountainous districts; and we may reasonably suppose that when investigations are made in the mountainous districts north of the 49th parallel, similar results will be obtained. The total production of the precious metals in Montana, has been, of gold \$54,481,833, of silver \$6,580,549. In Dakota, alongside of it, the production was \$14,101,138, but Dakota, it must be remembered, is a country of a different character from Montana. The estimate for Montana in 1881 is \$4,960,000 that for Dakota is \$4,070,000. I think we have every reason to expect that similar results will attend the prospecting of the country which is about to be opened up by the Canadian Pacific Railway by a pass further south through the mountains than was at first supposed practicable, which will, in that way, probably give additional advantages to those who wish to go in and prospect for the precious metals.

With regard to the crop in Manitoba and the North-West I have made some statements as to the growth of wheat. I now wish to say that according to the United States Census the average wheat yield for ten years is shown to be:—

Minnesota	17 bushels per acre.
Massachusetts	16.
Pennsylvania	15.
Wisconsin	13.
Iowa	10.
Ohio	10.
Illinois	8.

The average yield in Manitoba from 1877 to 1880, as far as can be ascertained, was 26 bushels to the acre; the average weight of which, as ascertained by comparison of 56 crops, was 62½ pounds to the bushel. The heaviest wheat in the United States is, in Minnesota 65 pounds; Ohio 60, Pennsylvania 60, and in Illinois 58 pounds to the bushel; the heaviest in the Canadian North-West is 66 pounds to the bushel. The average weight of the

barley of the North-West is 50 pounds to the bushel, and the yield averages 40 bushels to the acre during the period referred to by a comparison of 37 crops. In Minnesota the average is 25 bushels to the acre.

Iowa 22 bushels.

Wisconsin 20 bushels.

Ohio 19 bushels.

Indiana 19 bushels.

Illinois 17 bushels.

Throughout the North-West Territories barley is a sure crop, of the finest quality and brightest color, and the further you proceed to the North-West the plumper the berry, and the greater the yield. For malting purposes no better barley can be found in the world.

In a comparison of 51 crops of oats in the North-West the average weight per bushel was found to be $37\frac{1}{2}$ pounds, the average yield is 60 bushels, and 80 bushels to the acre is not an uncommon yield, while 100 bushels to the acre have actually been raised. In the Western States the average yield of oats is, in Minnesota 37 bushels, Iowa 28, Ohio 23.

Potatoes grow luxuriantly there; they are frequently found weighing 5 pounds each, and the average of over a hundred crops showed 318 bushels to the acre.

At Hay Lake, 800 miles west of Winnipeg the white variety has been grown $17\frac{1}{2}$ inches in circumference, and the purple $15\frac{1}{2}$ inches. New potatoes have been dug in latitude 56 degrees 12 minutes north, on the 21st of June. Cucumbers ripen in quantities from English seed at Little Red River 58 degrees 30 minutes north latitude. At Fort Simpson, 62 degrees north latitude, melons ripen every year—when started under glass—900 miles due north of the American boundary. From Winnipeg to Peace River, points 1300 miles apart, spring commences at the same time.

Taking one year with another the first spring flowers make their appearance about April 15th. Captain Butler found anemones covering a whole hillside on

the 26th of April in 56 degrees north latitude.

Red River and Peace River break up about the 15th of April. Red River closes in the first week in November and Peace River much later.

Seed time is from the middle of April to the middle of June. Wheat sowed as late as the 10th of June usually escapes the frost. On Peace River farm work begins April 20th. It is stated that seed can be put in with perfect safety in the autumn before the ground is closed with frost, and does not germinate until the following spring owing to the dryness of the atmosphere, and by this means the crops come to maturity much earlier.

On the great plains north of the Qu'Appelle Valley, from the month of July until September, Professor Macoun and his party found the ground literally covered with mushrooms, which could be gathered, to use his own expression, by the cart-load. One of these, found at Long Lake, in July, 1879, measured $30\frac{1}{4}$ inches in circumference, $2\frac{1}{4}$ inches through the centre of the cap, and weighed three pounds. He also found the giant puff-ball (*Lycoperdon*) which is delicious and harmless, as I myself can testify, having frequently eaten it.

Strawberries are abundant at Fort Ellice on the 15th June.

At Prince Albert wheat ripened in 1879 about the middle of August.

At Clear Springs the Mennonites grow their own tobacco. The plants are four feet high, grow luxuriantly and come to full maturity.

Mr. T. H. Brown, of Poplar Point says he sows his grain as soon as the frost is out of the ground sufficiently to allow the harrow to cover the seed, having ploughed in the fall, and has raised as good vegetables there, with comparatively little cultivation, as he has seen raised in his native place in the County of Kent, in England, where market gardening is carried on to perfection. Professor Macoun found 96 varieties of grasses. He states that but one poor grass is found among them

and gives the following analysis some of them as compared with timothy, showing that they compare favorably in flesh producing and heat producing qualities with the timothy grass so favorably known to our Ontario farmers.

VARIETIES.	Flesh-producing principle.	Fatty Matter.	Heat-producing principle.	Wood fibre and Albumen.
Timothy	11.36	3.55	53.35	31.74
Purple Wood Grass (rock, or sandy hills)	16.21	1.59	33.72	50.48
June Grass (very common)	11.54	2.86	40.69	44.91
Foal Meadow (abundant in wet places)	8.91	3.48	42.44	45.17
Foal Panic (sandy hills)	5.01	1.70	47.80	45.49
Sweet Scented (very common)	14.31	4.12	41.43	40.14
Rescue (sandy soil)	12.10	3.34	40.43	44.13
Sages	86 varieties.			
Rushes	11			
Pea family	41			

Buffalo Grass passes in August to well-cured hay, fully retaining its nutritive qualities.

It has been objected in some quarters that the policy of the Government in granting large tracts of land to companies, and selling large tracts to individuals is against the true interests of the country, it is also contended that we owe a duty to the settler by which he should be protected; and in the other House a resolution was offered on the Bill which is under discussion, providing that the lands of the North-West should be held absolutely and solely for the actual settler, and only granted to him in such quantities as he should be capable of successfully cultivating. In view of what I have stated—in view of the possibility, and the probability that the older wheat-producing countries are becoming

exhausted; that their yield per acre is steadily decreasing, it is almost certain that our great North-West, the enormous territory of at least 200,000,000 acres which seems to be specially adapted to the culture of the plant of which nothing can supply the place, is destined to become the wheat field of the world. In view of that it seems to be a very narrow policy to insist that culture should be postponed and limited until the whole of the land can be taken up by the actual settler who is to till the soil, as it would seem, with the work of his own hands. Nothing can be more adverse to the general interest of the world than the adoption of such a policy. I contend that it should be the aim of the Government to develop the productive power of that country as rapidly as possible; and it should also be their aim that one class only should not be permitted to occupy it. By giving out large tracts of land to men of means, labor can be employed, and the laborer who gets constant employment and good wages, will at no distant day become a landed proprietor in his turn. It is a very narrow policy to insist that a man must have a moderate amount of capital in order to acquire lands in the Northwest. The policy which is urged by certain gentlemen is a sort of pseudo philanthropy which will exclude the capitalist, and the laborer without means, from any participation in its advantages. I believe that the policy of the Government in granting large tracts can be fully justified. There is ample room for everybody. The homesteader or the settler has no vested right to any particular portion of the soil. The Government always have the right to withdraw, and always have adopted the policy of withdrawing from settlement any portion of those lands, and no man has a right to question that feature in the public policy. There is room enough under the provisions of the Bill now before us for the actual settler, the small homesteader; there is provision enough for all who will require lands, for almost the whole of Europe, and all those who are likely to come from the United States, in addition to those who may emigrate from the older Provinces of the Dominion. Millions of acres are at

the disposal of the settler. There is no restriction practically upon him, for the 25,000,000 acres taken by the Pacific Railway, and the few grants that are made to colonization roads and companies, are but small items in the great whole. The railway is compelled in order to reach its lands, to build branch lines without further subsidy which will open up the alternate sections to the settler who could not reach them without its aid, and the colonization companies are compelled to become emigration agents. The statements made by the hon. Minister of the Interior in 1880, at the time the 100,000,000 acres were granted by Parliament for the purpose of developing the North-West, and building the Canadian Pacific Railway, were severely criticised by the Opposition. That gentleman stated in his estimate that the incoming population for the year 1882, would be 35,000, and that there would be 5,000 a year added from that time until 1890.

He also stated that the sales of land would reach a certain figure, and the general results in 1890 were summed up in an aggregate, which was treated with utter derision by those gentlemen who always seem inclined to take a gloomy view of the progress of the Dominion, and who, from the logic of their position, are compelled to stand in opposition to anything likely to promote the progress and development of the country. They cannot help it; they must either give up opposition, or they must take that position, for the forward movements are made by the Conservative party. Sir John Macdonald estimated that the incoming population would be 35,000 in 1882. It actually reached 58,751. For the year 1883 his estimate was 40,000; the present estimate of the Minister of Agriculture is 75,000, and it will probably be exceeded. For 1884 he estimated 45,000; the Minister of Agriculture has data upon which he estimates the incoming population, for that year, at 100,000, and we heard within the last week of the arrival of the advance guard of the emigration of this year. Three thousand immigrants were then to be landed at Quebec, and I heard railway managers discussing as to how they were to provide a supply of rolling stock for transport-

ation; and stating they would be compelled to go as far west as Chicago in order to bring down cars enough to carry this vast force to the Land of Promise. In his statement Sir John Macdonald estimated the number of acres of land that would be sold in the three years of 1880, 1881 and 1882 at 5,280,000. The land actually sold up to the present time exceeds 10,000,000 acres. The revenue from the land sales for the same three years was estimated by Sir John Macdonald at \$1,479,000 which was also derided by the Opposition. The actual revenue during those years from that source, amounted to \$2,634,772. In 1879 the population of Manitoba and the North-West—these are not official figures, but figures I have made up from the census returns and from other data—was 122,240. It is a moderate estimate to say that 10,000 people went in in 1880; 15,000 in 1881; we have the figures for 1882 which I have given, 58,751; and for 1883 we have the calculation of the Minister of Agriculture, 75,000, and in 1884, according to that calculation it is expected that 100,000 will be added, making the population 380,991. In the table in the previous part of my address it will be found that by the census of 1870, the population of Kansas was 364,000; that of Minnesota 439,000, and of Nebraska 123,000. Taking the increase of these States which was 1,302,000, for the succeeding ten years as a basis, the population of Manitoba and the Northwest assuming it to reach 380,991 in 1884, would in 1894 reach in the same ratio 916,000. The calculations of the Rt. Hon. Leader of the Government given to the House of Commons in 1880 carried on to 1894 would give a population of 617,000. It would therefore seem that the actual growth of the three States in ten years exceeds that claimed by Sir John Macdonald for the Northwest in ten years by about fifty per cent. I have quoted very largely from the reports of Prof. Macoun. I consider that he has been one of the most useful of those who have been sent out to explore that country. With untiring zeal and enthusiasm, he has spent almost ten years of his life in this investigation. I believe as a practical botanist he has a very high reputation. He was commissioned by

Mr. Fleming in 1872 to examine the flora of the prairies between Winnipeg and Edmonton. In the same year he was sent with Mr. Charles Horetsky to explore Peace River District. In 1875 he accompanied Prof. Selwyn, as botanist, to British Columbia, thence by Peace River Pass descended Peace River to Lake Athabasca, and saw the country as far North as latitude 59; thence he journeyed East to Winnipeg—1,200 miles. In 1879 he investigated the causes of the supposed aridity of the Southern District, the results of which I have already stated. He argued from this that the rainfall was ample, but could not percolate the ground as rapidly as it fell, and in the dry atmosphere was evaporated and lost, and that the apparent aridity vanished before the first labors of husbandry.

Mr. Blodgett, an eminent American authority upon climatology, speaking of the North-West says:—

"Climate is indisputably the decisive condition; and when we find the isothermal of 60 degrees for summer rising on the American plains to the 61st parallel, it is impossible to doubt the existence of favorable climates over vast areas now unoccupied. Spring opens at the same time along the immense plains from St. Paul to the Mackenzie River." He also says that the plains of the North-West and their woodland borders, have a valuable surface of fully 500,000 square miles, and it is claimed that that valuable surface certainly extends from parallel 49 on the south, to 60 on the north, and if bounded east by the 95th meridian and west by the Rocky Mountains, would contain, 667,600 square miles. But it must be remembered that vast tracts of equally fertile land which will probably be as available and profitable to the cultivator, lie north of the 60th parallel. The question is asked by some statisticians in the United States, whether the great interior of the American Continent, within American territory, will continue to contribute to the export of wheat and flour, referring particularly to Montana, Idaho, Colorado, Utah and Nevada; and Mr. Taylor, United States Counsel at Winnipeg, who has carefully studied the subject, says:—

"Let us take the most favorable of all, Montana. Grand as are its resources, I

am constrained to believe that only one-thirteenth of its surface is within reach of the unavoidable conditions of irrigation. The United States Commissioner of mining statistics in 1868, said that the area of Montana was 146,689 square miles amounting to 93,881,184 acres, yet no greater proportion is claimed by the local authorities as susceptible of cultivation, than one acre in thirty, or a total of 3,346,400. The remainder, however, is valuable for grazing and sheep farming."

I may mention in connection with the general tenor of my remarks, and as an additional reason for making them, that within a short time the most virulent and unjustifiable attack has been made upon the North-West, that I ever remember to have noticed. In an English financial journal a studied assault upon the whole policy of the Government, and upon the whole condition of the Northwest, the value of its lands, and particularly upon its climate, was published and circulated by tens of thousands in Great Britain, and largely in Canada. It seemed to have been made in the interests of persons who desired to prevent the growth and development of the North-West and the sale and settlement of its lands. It was an attack partly upon the Canadian Pacific Railway, partly upon the North-West land companies and largely upon the Government itself. That attack contained several of the most absurd statements that can be imagined. Fancy a man sitting in the foggy atmosphere of London writing, perhaps, by gas light at mid-day, surrounded by all the disagreeable odors which prevail in the business parts of that great metropolis, and talking learnedly there about the insalubrity of the Great North-West, where zymotic diseases are almost unknown! Fancy him saying that nobody can live in that wintry climate, when we all know that in Ontario and Quebec where the thermometer often falls far below zero and where the climatic conditions are not more favorable, there is nothing more exhilarating or healthful than the clear, crisp, frosty air of a winter day—nothing more enjoyable. We all know that immunity from disease follows this low temperature in the North-West. We know that no more healthy children are to be found than in the coun-

ties of Huron and Bruce, in Northern Ontario where I have seen them merrily playing and enjoying themselves out of doors when the snow was two feet deep, and the mercury ten degrees below zero, and such a climate was one of the principal arguments urged against the settler going into the North-West. Another was that there was no fuel, and in such a climate settlers would not be able to provide themselves with a supply for winter use. The discoveries which have been published within the last few weeks show that the underlying beds of coal in that part of the country which is called the lignite formation, are so immense that it has been stated, and I believe authoritatively, that the farming lands which are underlaid by these coal seams will not be more valuable because of the coal. On the Bow River, the Belly River, the Calgary and various parts of the country through which the Pacific Railway is to pass, there are coal lands which are estimated to contain five million tons to the square mile of coal of the very best quality, and that seems, once for all, to settle that which was the great, and I may say (without wishing to perpetrate a joke) the burning question in the North-West.

I had great reluctance in rising to speak on this subject. I feared perhaps, at this late period of the session, I might be considered as having trespassed upon the patience and kindness of my fellow members; but I felt that it would be of service to us all to endeavour, so far as I might in a feeble way, to concentrate the different items which form very largely the information which we now have and to condense the prominent points into a compendium in the shape of an address to this House which might safely be quoted as authoritative; and I assure my hon. friends that I have not made a single statement which cannot be substantiated. We must feel, upon looking over the whole case, that we have indeed, as I have faintly endeavored to show, a goodly heritage, and it entails upon us the grave responsibilities which vast wealth brings with it to the possessor. We hold it from the Creator, in trust for those who are destined to go in and possess it, and we are bound faithfully to execute that

trust to the best of our ability, laying aside prejudice, partizanship and all idea of personal advantage, and looking only to our country's good and to the greatest and most permanent benefit of religion, civilization and humanity. In view of such solemn and vast responsibilities, a generous acknowledgement should be awarded, and a forbearing and kindly spirit should be manifested to those upon whom they directly rest; and who I am sure it cannot be denied, are fairly and honestly endeavoring to meet those responsibilities. Their duties are arduous and laborious and I believe the country fully approves the manner in which they have been discharged. The people have twice emphatically endorsed the policy of the leader of the Conservative party in respect to the North-West—once by anticipation, we having clearly enunciated it as one of the main issues at the polls in 1878: and the second time after full and ample discussion on the platform, in Parliament and by the press, when promise had become performance, and the great work of uniting by a band of steel the widely separated Orient and Occident limits of the Dominion, and of opening up to settlement and cultivation the vast fertile solitudes through which it takes its course, was going forward more rapidly than the most sanguine calculations could have foreshadowed. Far removed and wholly free from political convulsions which agitate and threaten other parts of the world, it seems destined to be the favored centre of the oldest and most honored of all the industries—the tillage of the soil. The arts of peace can there be cultivated and can flourish without let or hindrance. Ample provision is made for all who come, and labor will there meet its full reward. We want the people of the older provinces to be the pioneers. There can be no sound objection to the healthy current of population flowing westward which has similarly coursed towards and over the prairies of the Republic. It is to the Provinces that we must look to carry thither the methods of government, the municipal organizations which are the safety, the pride, and the boast of our Dominion and of the mother country from which they are derived—the great unwritten Constitution in which

"Freedom slowly broadens down
From precedent to precedent."

It should be our duty and our privilege to hold fast to the liberty which we have inherited, and to do our endeavor to hand it down unimpaired to those who are to succeed us, and through this to secure to those who may cast their lot with us the priceless blessings of law, order and security to life and property with their attendant privileges and advantages.

In conclusion; I wish to say that I believe under God there is a great destiny reserved for the country which we hold in trust, and a great destiny for us of this whole Dominion also if we are true to ourselves and true to the responsibilities which rest upon us. That we may be able ourselves, and by our example teach those who may come after us to carry out those trusts and to adhere to the sound doctrine which has made us what we are, must be the dearest wish of us all.

